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**International Journal of Oncology Study**  
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**Case-control study of the association between malignant brain tumours diagnosed between 2007 and 2009 and mobile and cordless phone use**

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**Abstract**

Previous studies have shown a consistent association between long-term use of mobile and cordless phones and glioma and acoustic neuroma, but not for meningioma. When used these phones emit radiofrequency electromagnetic fields (RF-EMFs) and the brain is the main target organ for the handheld phone. The International Agency for Research on Cancer (IARC) classified in May, 2011 RF-EMF as a group 2B, i.e. a 'possible' human carcinogen. The aim of this study was to further explore the relationship between especially long-term (>10 years) use of wireless phones and the development of malignant brain tumours. We conducted a new case-control study of brain tumour cases of both genders aged 18-75 years and diagnosed during 2007-2009. One population-based control matched on gender and age (within 5 years) was used to each case. Here, we report on malignant cases including all available controls. Exposures on e.g. use of mobile phones and cordless phones were assessed by a self-administered questionnaire. Unconditional logistic regression analysis was performed, adjusting for age, gender, year of diagnosis and socio-economic index using the whole control sample. Of the cases with a malignant brain tumour, 87% (n=593) participated, and 85% (n=1,368) of controls in the whole study answered the questionnaire. The odds ratio (OR) for mobile phone use of the analogue type was 1.8, 95% confidence interval (CI)=1.04-3.3, increasing with >25 years of latency (time since first exposure) to an OR=3.3, 95% CI=1.6-6.9. Digital 2G mobile phone use rendered an OR=1.6, 95% CI=0.996-2.7, increasing with latency >15-20 years to an OR=2.1, 95% CI=1.2-3.6. The results for cordless phone use were OR=1.7, 95% CI=1.1-2.9, and, for latency of 15-20 years, the OR=2.1, 95% CI=1.2-3.8. Few participants had used a cordless phone for >20-25 years. Digital type of wireless phones (2G and 3G mobile phones, cordless phones) gave increased risk with latency >1-5 years, then a lower risk in the following latency groups, but again increasing risk with latency >15-20 years. Ipsilateral use resulted in a higher risk than contralateral mobile and cordless phone use. Higher ORs were calculated for tumours in the temporal and overlapping lobes. Using the meningioma cases in the same study as reference entity gave somewhat higher ORs indicating that the results were unlikely to be explained by recall or observational bias. This study confirmed previous results of an association between mobile and cordless phone use and malignant brain tumours. These findings provide support for the hypothesis that RF-EMFs play a role both in the initiation and promotion stages of carcinogenesis.

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## **International Journal of Oncology Study Media Pickup**

**9/27/13**

### **Brain Cancer Risk Increases with the Amount of Wireless Phone Use**

Publication: Electromagnetic Radiation Safety

Date: 9/25/13

<http://www.saferemr.com/2013/09/brain-cancer-risk-increases-with-amount.html>

New research indicates that brain cancer risk increases with more years of cell phone and cordless phone use and more hours of use.

Dr. Lennart Hardell and his colleagues in Sweden just published the third in a series of papers on the use of wireless phones, including cell phones and cordless phones, and the risk of malignant and non-malignant brain tumors. The latest paper describes a new case-control study that examines the association between mobile phone use and brain cancer risk. In these studies, the cases were diagnosed with brain tumors between 2007 and 2009. (1)

The study updates earlier research from case-control studies conducted by the Hardell group and extends the prior research by examining the effects of wireless phone use, i.e., cell phone and cordless phone use, on brain tumor risk for people who have used these phones for up to 25 or more years.

Overall, the research found that people who used wireless phones for more than a year were at 70% greater risk of brain cancer as compared to those who used wireless phones for a year or less. Those who used wireless phones for more than 25 years were at greatest risk—300% greater risk of brain cancer than those who used wireless phones for a year or less.

The total number of hours of wireless phone use was as important as the number of years of use. A fourth of the sample used wireless phones for 2,376 or more hours in their lifetime which corresponds to about 40 minutes a day over ten years. These heavier users had 250% greater risk of brain tumors as compared to those who never used wireless phones or used them for less than 39 hours in their lifetime.

A similar analysis reported in the 13-nation Interphone study funded partly by the World Health Organization found a 182% greater risk of brain cancer among those who used cell phones for 1,640 or more hours in their lifetime.

In the current study, for all types of wireless phone use, brain cancer risk was found to be greater in the part of the brain where the exposure to wireless phone radiation was highest—in the temporal or overlapping lobes of the brain on the side of the head where people predominantly used their phones.

Given consistent results from multiple case-control studies that long-term use of mobile phones (i.e., ten or more years) is associated with brain cancer especially near where the phone is predominantly used, the International Agency for Research on Cancer should strengthen its 2011 assessment of radiofrequency energy from “possibly carcinogenic” to “probably carcinogenic” to humans.

More importantly, governments around the world should heed the results of these studies. The public must be educated about the need to take simple precautions whenever using wireless devices. Governments must strengthen regulatory standards for wireless radiation and must fund research independent of industry to develop safer technologies.

The paper was published online in the peer-reviewed journal, International Journal of Oncology. The abstract and a link to this paper appears below along with the abstracts for the Hardell group's two prior papers from this study. All three papers are open access. (1-3)

## **Cell Phone Radiation Lawsuit Update: Bernstein Liebhard LLP Comments on Latest Research into Cell Phone Use and Brain Tumors**

Publication: PRWeb Newswire

Date: 9/27/13

<http://www.digitaljournal.com/pr/1494187>

As cell phone radiation lawsuits (<http://www.consumerinjurylawyers.com/cell-phone-radiation-lawsuit.html>) move forward throughout the country, Bernstein Liebhard LLP notes that a new study published in the International Journal of Oncology appears to confirm a link between cell phones and brain tumors that has been seen in previous research. The case-controlled study looked at brain tumor cases of both genders aged 18-75 years and diagnosed during 2007-2009. Exposures to mobile phones and cordless phones were assessed by a self-administered questionnaire. According to the authors of the study, their findings provide support for the hypothesis that radio frequency-modulated electromagnetic fields (RF-EMFs) play a role both in both the initiation and promotion stages of brain tumor development.\*

"The findings of this study are compelling, and only add to the growing body of evidence that indicates a real risk of brain tumors from cell phones," says Bernstein Liebhard LLP, a nationwide law firm representing the victims of defective drugs, medical devices, and consumer products. The Firm is part of a small consortium of law firms actively representing plaintiffs in cell phone radiation lawsuits. (Case No. 0008533-12, Superior Court, District of Columbia)

### **Brain Tumors and Cell Phones**

The possible link between the development of brain tumors and cell phones has caused considerable concern in recent years. In May 2011, for example, the World Health Organization's International Agency on Research for Cancer (IARC) announced it was reclassifying cell phone radiation as possibly carcinogenic, after the Interphone study found 30 minutes of cell phone use per day was associated with a 40% increased risk for a type of brain tumor called glioma.\*\*

Earlier this month, the Environmental Working Group and 11 other public interest organizations wrote to the U.S. Food & Drug Administration (FDA) and the Federal Communications Commission (FCC) urging the regulators to revamp cell phone radiation standards. According to a statement issued by the Environmental Working Group, the FCC last revised those standards in 1996.\*\*\*

In 2012, the U.S. Government Accountability Office ("GAO") characterized the FCC's current standards as outdated, and criticized the Commission for failing to reflect the most recent research on cell phone radiation.\*\*\*\* The FCC has since initiated such a review.

Individuals who may have developed brain tumors from cell phones could be eligible for compensation for medical bills, lost wages, pain and suffering and more. Learn More about the possible association between cell phone use and brain tumors at Bernstein Liebhard LLP's website. For more information, please call 800-511-5092 to speak with an attorney today.